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4, 7TH MAIN MALLESWARAM, BANGALORE -3
Certificate No.: TC-5548

Format No: CP/TF/01

TEST REPORT OF CEMENT CONCRETE CUBES

: CP-2022-02-26-20

Date: 27/01/2022

: Improvements roads and drains at MCECHS Layout in Ward No.05 Byatarayanapura Sub Division.

: M/S Sathya A Constructions Prop. Sri.R.Satheesh, No:600, Down Bazar Road, Yelahanka Bengalore-560064

Reference : BBMP/EE/BTP/WO/29/2021-22

: 31-12-21

: Drain Concrete Side Wall

Size : 150X150X150 mm

Age : M20 / 28 Days Compressive Strength

BIS codes : IS: 516 - 1959 Methods of Tests for Strength of Concrete Cl.5

: 26/01/2022

Identification Mark	Grade of concrete	Date of Casting	Date of Testing	Dimension of the Specimen (mm)	Cross sectional area (Sq.mm)	Weight of the sample (kg)	Failure Load (KN)	Compressive strength (N/mm^2)	Average Compressive Strength (N/mm^2)
Drain Concrete Side Wall	M20	29/12/2021	26/01/2022	151.78 X 151.96 X 149.12	23064	9.099	540.2	23.4	23.0
Drain Concrete Side Wall	M20	29/12/2021	26/01/2022	150.80 X 151.68 X 151.60	22873	8.441	536.6	23.5	
Drain Concrete Side Wall	M20	29/12/2021	26/01/2022	149.01 X 149.34 X 151.15	22252	8.177	494.9	22.2	

contained are satisfactory as per standard requirements.

CIVIL Pro Sig..... Date..... BANGALORE

FOR CIVIL Pro,

R KARTHIK RECHAN
Authorized Signatory
Quality Manager

****End of Report****

ಪಡಾಯಕ ಕಾರ್ಯಪಾಲಕ ಅಭಿಯಂತರರು
ಬ್ಯಾಟರಾಯನಪುರ ಉಪ ವಿಭಾಗ
ಬಿ.ಬಿ.ಎಂ.ಪಿ., ಬಂಗಳೂರು-24

9972924526 | Tel : +91 80 23444801 | e : rechan6630@yahoo.co.in, civilproexperts@gmail.com

Format No: CP/TF/01

TEST REPORT OF CEMENT CONCRETE CUBES

Lab ID : **CP-2022-02-26-20**

Date: 08/01/2022

Project Name : Improvements roads and drains at MCECHS Layout in Ward No.05 Byatarayanapura Sub Division.

Agency : M/S Sathya A Constructions Prop. Sri.R.Satheesh, No:600, Down Bazar Road, Yelahanka Bengalore-560064

Customer's Reference : BBMP/EE/BTP/WO/29/2021-22

Date of Receipt : 03-01-22

Customer ID : Drain Concrete Side Wall

Sample Type /Size : 150X150X150 mm

Sample grade/Age : M20 / 7 Days Compressive Strength

Reference to BIS codes : IS: 516 - 1959 Methods of Tests for Strength of Concrete Cl.5

Date of test : 08/01/2022

Sl. No.	Identification Mark	Grade of concrete	Date of Casting	Date of Testing	Dimension of the Specimen (mm)	Cross sectional area (Sq.mm)	Weight of the sample (kg)	Failure Load (KN)	Compressive strength (N/mm^2)	Average Compressive Strength (N/mm^2)
1	Drain Concrete Side Wall	M20	01/01/2022	08/01/2022	151.96 X 149.81 X 150.50	22765	8.387	422.5	18.6	18.4
2	Drain Concrete Side Wall	M20	01/01/2022	08/01/2022	149.31 X 149.53 X 150.06	22326	8.518	411.0	18.4	
3	Drain Concrete Side Wall	M20	01/01/2022	08/01/2022	151.15 X 151.77 X 151.91	22940	8.867	421.5	18.4	

Remarks: Results obtained are satisfactory as per standard requirements.

CIVIL Pro Sig..... Date..... BANGALORE

FOR CIVIL Pro.

R.KARTHIK RECHAN
Authorized Signatory
Quality Manager

****End of Report****

ಸಹಾಯಕ ಕಾರ್ಯಪಾಲಕ ಅಭಿಯಂತರರ
ಬ್ಯಾಟರಾಯನಪುರ ಉಪ ವಿಭಾಗ
ಬಿ.ಬಿ.ಎಂ.ಪಿ., ಬೆಂಗಳೂರು-24

Format No: CP/TF/01

TEST REPORT OF CEMENT CONCRETE CUBES

Lab ID : **CP-2022-02-26-20**

Date: 29/01/2022

Project Name : Improvements roads and drains at MCECHS Layout in Ward No.05 Byatarayanapura Sub Division.

Agency : M/S Sathya A Constructions Prop. Sri.R.Satheesh, No:600, Down Bazar Road, Yelahanka Bengalore-560064

Customer's Reference : BBMP/EE/BTP/WO/29/2021-22

Date of Receipt : 03-01-22

Customer ID : Drain Concrete Side Wall

Sample Type /Size : 150X150X150 mm

Sample grade/Age : M20 / 28 Days Compressive Strength

Reference to BIS codes : IS: 516 - 1959 Methods of Tests for Strength of Concrete Cl.5

Date of test : 29/01/2022

Sl. No.	Identification Mark	Grade of concrete	Date of Casting	Date of Testing	Dimension of the Specimen (mm)	Cross sectional area (Sq.mm)	Weight of the sample (kg)	Failure Load (KN)	Compressive strength (N/mm^2)	Average Compressive Strength (N/mm^2)
1	Drain Concrete Side Wall	M20	01/01/2022	29/01/2022	151.91 X 150.38 X 149.16	22845	8.293	548.0	24.0	23.4
2	Drain Concrete Side Wall	M20	01/01/2022	29/01/2022	149.94 X 149.43 X 150.99	22407	8.568	526.5	23.5	
3	Drain Concrete Side Wall	M20	01/01/2022	29/01/2022	151.03 X 149.31 X 150.74	22550	8.691	512.7	22.7	

Results obtained are satisfactory as per standard requirements.

CIVIL Pro Sig..... Date..... BANGALORE

FOR CIVIL Pro.

R KARTHIK RECHAN
Authorized Signatory
Quality Manager

****End of Report****

ಸಹಾಯಕ ಕಾರ್ಯಪಾಲಕ ಅಭಿಯಂತರರ
ಬ್ಯಾಟರಾಯನಪುರ ಉಪ ವಿಭಾಗ
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Certificate No.: TC-5548

Format No: CP/TF/01

TEST REPORT OF CEMENT CONCRETE CUBES

Lab ID : **CP-2022-02-26-20**

Date: 08/01/2022

Project Name : Improvements roads and drains at MCECHS Layout in Ward No.05 Byatarayanapura Sub Division.

Agency : M/S Sathya A Constructions Prop. Sri.R.Satheesh, No:600, Down Bazar Road, Yelahanka Bengalore-560064

Customer's Reference : BBMP/EE/BTP/WO/29/2021-22

Date of Receipt : 03-01-22

Customer ID : Drain Concrete Side Wall

Sample Type /Size : 150X150X150 mm

Sample grade/Age : M20 / 7 Days Compressive Strength

Reference to BIS codes : IS: 516 - 1959 Methods of Tests for Strength of Concrete Cl.5

Date of test : 08/01/2022

Sl. No.	Identification Mark	Grade of concrete	Date of Casting	Date of Testing	Dimension of the Specimen (mm)	Cross sectional area (Sq.mm)	Weight of the sample (kg)	Failure Load (KN)	Compressive strength (N/mm^2)	Average Compressive Strength (N/mm^2)
1	Drain Concrete Side Wall	M20	01/01/2022	08/01/2022	151.33 X 149.77 X 149.09	22666	9.072	408.9	18.0	18.3
2	Drain Concrete Side Wall	M20	01/01/2022	08/01/2022	151.50 X 150.50 X 151.32	22801	8.905	426.3	18.7	
3	Drain Concrete Side Wall	M20	01/01/2022	08/01/2022	151.61 X 150.40 X 149.64	22801	8.695	416.0	18.2	

The results obtained are satisfactory as per standard requirements.

CIVIL Pro Sig..... Date..... BANGALORE

FOR CIVIL Pro.

R KARTHIK RECHAN
Authorized Signatory
Quality Manager

****End of Report****

ಸಹಾಯಕ ಕಾರ್ಯಪಾಲಕ ಅಭಿಯಂತರರು
ಬ್ಯಾಟರಾಯನಪುರ ಉಪ ವಿಭಾಗ
ಬಿ.ಬಿ.ಎಂ.ಪಿ., ಬೆಂಗಳೂರು-24

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TEST REPORT OF CEMENT CONCRETE CUBES

Lab ID : **CP-2022-02-26-20**

Date: 29/01/2022

Project Name : Improvements roads and drains at MCECHS Layout in Ward No.05 Byatarayanapura Sub Division.

Agency : M/S Sathya A Constructions Prop. Sri.R.Satheesh, No:600, Down Bazar Road, Yelahanka Bengalore-560064

Customer's Reference : BBMP/EE/BTP/WO/29/2021-22

Date of Receipt : 03-01-22

Customer ID : Drain Concrete Side Wall

Sample Type /Size : 150X150X150 mm

Sample grade/Age : M20 / 28 Days Compressive Strength

Reference to BIS codes : IS: 516 - 1959 Methods of Tests for Strength of Concrete Cl.5

Date of test : 29/01/2022

Sl. No.	Identification Mark	Grade of concrete	Date of Casting	Date of Testing	Dimension of the Specimen (mm)	Cross sectional area (Sq.mm)	Weight of the sample (kg)	Failure Load (KN)	Compressive strength (N/mm^2)	Average Compressive Strength (N/mm^2)
1	Drain Concrete Side Wall	M20	01/01/2022	29/01/2022	149.10 X 150.00 X 151.07	22365	8.844	527.0	23.6	23.0
2	Drain Concrete Side Wall	M20	01/01/2022	29/01/2022	149.59 X 149.77 X 149.72	22405	9.058	520.3	23.2	
3	Drain Concrete Side Wall	M20	01/01/2022	29/01/2022	151.86 X 149.15 X 149.55	22650	9.043	503.6	22.2	

The results obtained are satisfactory as per standard requirements.

CIVIL Pro Sig..... Date..... BANGALORE

FOR CIVIL Pro.

R.KARTHIK RECHAN
Authorized Signatory
Quality Manager

Page 1/1
****End of Report****

9972924526 | Tel : +91 80 23444801 | e : rechan6630@yahoo.co.in, civilproexperts@gmail.com

Format No: CP/TF/01

TEST REPORT OF CEMENT CONCRETE CUBES

Lab ID : **CP-2022-02-26-20**

Date: 10/01/2022

Project Name : Improvements roads and drains at MCECHS Layout in Ward No.05 Byatarayanapura Sub Division.

Agency : M/S Sathya A Constructions Prop. Sri.R.Satheesh, No:600, Down Bazar Road, Yelahanka Bengalore-560064

Customer's Reference : BBMP/EE/BTP/WO/29/2021-22

Date of Receipt : 05-01-22

Customer ID : Drain Concrete Side Wall

Sample Type /Size : 150X150X150 mm

Sample grade/Age : M20 / 7 Days Compressive Strength

Reference to BIS codes : IS: 516 - 1959 Methods of Tests for Strength of Concrete Cl.5

Date of test : 10/01/2022

Sl. No.	Identification Mark	Grade of concrete	Date of Casting	Date of Testing	Dimension of the Specimen (mm)	Cross sectional area (Sq.mm)	Weight of the sample (kg)	Failure Load (KN)	Compressive strength (N/mm^2)	Average Compressive Strength (N/mm^2)
1	Drain Concrete Side Wall	M20	03/01/2022	10/01/2022	150.62 X 150.45 X 149.05	22661	8.150	422.6	18.6	18.4
2	Drain Concrete Side Wall	M20	03/01/2022	10/01/2022	149.84 X 149.96 X 149.15	22471	9.086	414.0	18.4	
3	Drain Concrete Side Wall	M20	03/01/2022	10/01/2022	151.09 X 151.17 X 150.33	22840	9.079	411.3	18.0	

The results obtained are satisfactory as per standard requirements.

CIVIL Pro Sig..... Date..... BANGALORE

FOR CIVIL Pro.

R.KARTHIK RECHAN
Authorized Signatory
Quality Manager

Page 1/1
****End of Report****

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ಬ್ಯಾಟರಾಯನಪುರ ಉಪ ವಿಭಾಗ
ಬಿ.ಬಿ.ಎಂ.ಪಿ., ಬೆಂಗಳೂರು-26

Format No: CP/TF/01

TEST REPORT OF CEMENT CONCRETE CUBES

Lab ID : **CP-2022-02-26-20**

Date: 31/01/2022

Project Name : Improvements roads and drains at MCECHS Layout in Ward No.05 Byatarayanapura Sub Division.

Agency : M/S Sathya A Constructions Prop. Sri.R.Satheesh, No:600, Down Bazar Road, Yelahanka Bengalore-560064

Customer's Reference : BBMP/EE/BTP/WO/29/2021-22

Date of Receipt : 05-01-22

Customer ID : Drain Concrete Side Wall

Sample Type /Size : 150X150X150 mm

Sample grade/Age : M20 / 28 Days Compressive Strength

Reference to **BIS codes** : IS: 516 - 1959 Methods of Tests for Strength of Concrete Cl.5

Date of test : 31/01/2022

Sl. No.	Identification Mark	Grade of concrete	Date of Casting	Date of Testing	Dimension of the Specimen (mm)	Cross sectional area (Sq.mm)	Weight of the sample (kg)	Failure Load (KN)	Compressive strength (N/mm^2)	Average Compressive Strength (N/mm^2)
1	Drain Concrete Side Wall	M20	03/01/2022	31/01/2022	150.81 X 149.72 X 149.90	22580	8.449	535.9	23.7	23.2
2	Drain Concrete Side Wall	M20	03/01/2022	31/01/2022	150.59 X 150.28 X 151.68	22632	8.395	519.7	23.0	
3	Drain Concrete Side Wall	M20	03/01/2022	31/01/2022	149.80 X 149.46 X 150.63	22389	8.192	514.2	23.0	

Remarks: Results obtained are satisfactory as per standard requirements.

CIVIL Pro Sig..... Date..... BANGALORE

FOR CIVIL Pro.

R KARTHIK RECHAN
Authorized Signatory
Quality Manager

Page 1/1
****End of Report****

ಸಹಾಯಕ ಕಾರ್ಯಪಾಲಕ ಅಭಿಯಂತರರು
ಬ್ಯಾಟರಾಯನಪುರ ಉಪ ವಿಭಾಗ
ಬಿ.ಬಿ.ಎಂ.ಪಿ., ಬೆಂಗಳೂರು-26

Format No: CP/TF/01

TEST REPORT OF CEMENT CONCRETE CUBES

Lab ID : **CP-2022-02-26-20**

Date: 10/01/2022

Project Name : Improvements roads and drains at MCECHS Layout in Ward No.05 Byatarayanapura Sub Division.

Agency : M/S Sathya A Constructions Prop. Sri.R.Satheesh, No:600, Down Bazar Road, Yelahanka Bengalore-560064

Customer's Reference : BBMP/EE/BTP/WO/29/2021-22

Date of Receipt : 05-01-22

Customer ID : Drain Concrete Side Wall

Sample Type /Size : 150X150X150 mm

Sample grade/Age : M20 / 7 Days Compressive Strength

Reference to BIS codes : IS: 516 - 1959 Methods of Tests for Strength of Concrete Cl.5

Date of test : 10/01/2022

Sl. No.	Identification Mark	Grade of concrete	Date of Casting	Date of Testing	Dimension of the Specimen (mm)	Cross sectional area (Sq.mm)	Weight of the sample (kg)	Failure Load (KN)	Compressive strength (N/mm^2)	Average Compressive Strength (N/mm^2)
1	Drain Concrete Side Wall	M20	03/01/2022	10/01/2022	149.89 X 151.33 X 151.81	22683	8.893	425.6	18.8	18.4
2	Drain Concrete Side Wall	M20	03/01/2022	10/01/2022	150.90 X 151.80 X 151.23	22906	8.553	418.3	18.3	
3	Drain Concrete Side Wall	M20	03/01/2022	10/01/2022	149.14 X 149.85 X 151.45	22349	8.675	408.3	18.3	

The results obtained are satisfactory as per standard requirements.

CIVIL Pro Sig..... Date..... BANGALORE

FOR CIVIL Pro.

R KARTHIK RECHAN
Authorized Signatory
Quality Manager

Page 1/1
****End of Report****

ಸಹಾಯಕ ಕಾರ್ಯಪಾಲಕ ಅಭಿಯಂತರರು
ಬ್ಯಾಟರಾಯನಪುರ ಉಪ ವಿಭಾಗ
ಬಿ.ಬಿ.ಎಂ.ಪಿ., ಬೆಂಗಳೂರು-24

Format No: CP/TF/01

TEST REPORT OF CEMENT CONCRETE CUBES

Lab ID : **CP-2022-02-26-20**

Date: 31/01/2022

Project Name : Improvements roads and drains at MCECHS Layout in Ward No.05 Byatarayanapura Sub Division.

Agency : M/S Sathya A Constructions Prop. Sri.R.Satheesh, No:600, Down Bazar Road, Yelahanka Bengalore-560064

Customer's Reference : BBMP/EE/BTP/WO/29/2021-22

Date of Receipt : 05-01-22

Customer ID : Drain Concrete Side Wall

Sample Type /Size : 150X150X150 mm

Sample grade/Age : M20 / 28 Days Compressive Strength

Reference to BIS codes : IS: 516 - 1959 Methods of Tests for Strength of Concrete Cl.5

Date of test : 31/01/2022

Sl. No.	Identification Mark	Grade of concrete	Date of Casting	Date of Testing	Dimension of the Specimen (mm)	Cross sectional area (Sq.mm)	Weight of the sample (kg)	Failure Load (KN)	Compressive strength (N/mm^2)	Average Compressive Strength (N/mm^2)
1	Drain Concrete Side Wall	M20	03/01/2022	31/01/2022	149.34 X 149.20 X 149.33	22281	8.171	529.9	23.8	22.9
2	Drain Concrete Side Wall	M20	03/01/2022	31/01/2022	151.01 X 149.96 X 150.42	22646	8.506	519.8	23.0	
3	Drain Concrete Side Wall	M20	03/01/2022	31/01/2022	150.82 X 151.91 X 150.84	22911	8.337	504.1	22.0	

The results obtained are satisfactory as per standard requirements.

CIVIL Pro Sig..... Date..... BANGALORE

FOR CIVIL Pro.

R KARTHIK RECHAN
Authorized Signatory
Quality Manager

****End of Report****

ಸಹಾಯಕ ಲೆಕ್ಕಾಧಿಕಾರಿಯವರ
ಬ್ಯಾಟರಾಯನಪುರ ಉಪ ವಿಭಾಗ
ಬಿ.ಬಿ.ಎಂ.ಪಿ., ಬೆಂಗಳೂರು-26

Format No: CP/TF/01

TEST REPORT OF CEMENT CONCRETE CUBES

Lab ID : **CP-2022-02-26-20** **Date: 18/01/2022**

Project Name : Improvements roads and drains at MCECHS Layout in Ward No.05 Byatarayanapura Sub Division.

Agency : M/S Sathya A Constructions Prop. Sri.R.Satheesh, No:600, Down Bazar Road, Yelahanka Bengalore-560064

Customer's Reference : BBMP/EE/BTP/WO/29/2021-22

Date of Receipt : 13-01-22

Customer ID : Culvert Bottom Raft

Sample Type /Size : 150X150X150 mm

Sample grade/Age : M20 / 7 Days Compressive Strength

Reference to BIS codes : IS: 516 - 1959 Methods of Tests for Strength of Concrete Cl.5

Date of test : 18/01/2022

Sl. No.	Identification Mark	Grade of concrete	Date of Casting	Date of Testing	Dimension of the Specimen (mm)	Cross sectional area (Sq.mm)	Weight of the sample (kg)	Failure Load (KN)	Compressive strength (N/mm^2)	Average Compressive Strength (N/mm^2)
1	Culvert Bottom Raft	M20	11/01/2022	18/01/2022	150.56 X 150.05 X 149.45	22592	8.254	407.6	18.0	18.4
2	Culvert Bottom Raft	M20	11/01/2022	18/01/2022	149.45 X 149.82 X 150.46	22390	8.503	418.6	18.7	
3	Culvert Bottom Raft	M20	11/01/2022	18/01/2022	150.40 X 151.13 X 151.91	22730	8.575	421.2	18.5	

The results obtained are satisfactory as per standard requirements.

CIVIL Pro Sig..... Date..... BANGALORE

FOR CIVIL Pro.

R KARTHIK RECHAN
Authorized Signatory
Quality Manager

****End of Report****

ಸಹಾಯಕ ಕಾರ್ಯಪಾಲಕ ಅಭಿಯಂತರರ
ಬ್ಯಾಟರಾಯನಪುರ ಉಪ ವಿಭಾಗ
ಬಿ.ಬಿ.ಎಂ.ಪಿ., ಬಂಗಳೂರು-24

Format No: CP/TF/01

TEST REPORT OF CEMENT CONCRETE CUBES

Lab ID : **CP-2022-02-26-20**

Date: 08/02/2022

Project Name : Improvements roads and drains at MCECHS Layout in Ward No.05 Byatarayanapura Sub Division.

Agency : M/S Sathya A Constructions Prop. Sri.R.Satheesh, No:600, Down Bazar Road, Yelahanka Bengalore-560064

Customer's Reference : BBMP/EE/BTP/WO/29/2021-22

Date of Receipt : 13-01-22

Customer ID : Culvert Bottom Raft

Sample Type /Size : 150X150X150 mm

Sample grade/Age : M20 / 28 Days Compressive Strength

Reference to BIS codes : IS: 516 - 1959 Methods of Tests for Strength of Concrete Cl.5

Date of test : 08/02/2022

Sl. No.	Identification Mark	Grade of concrete	Date of Casting	Date of Testing	Dimension of the Specimen (mm)	Cross sectional area (Sq.mm)	Weight of the sample (kg)	Failure Load (KN)	Compressive strength (N/mm^2)	Average Compressive Strength (N/mm^2)
1	Culvert Bottom Raft	M20	11/01/2022	08/02/2022	151.08 X 150.03 X 150.12	22667	8.902	529.0	23.3	22.9
2	Culvert Bottom Raft	M20	11/01/2022	08/02/2022	150.18 X 150.47 X 149.60	22597	8.220	516.8	22.9	
3	Culvert Bottom Raft	M20	11/01/2022	08/02/2022	149.90 X 150.89 X 149.98	22618	8.133	510.1	22.6	

The results obtained are satisfactory as per standard requirements.

CIVIL Pro Sig..... Date..... BANGALORE

FOR CIVIL Pro.

R KARTHIK RECHAN
Authorized Signatory
Quality Manager

Page 1/1
****End of Report****

ಸಹಾಯಕ ಕಾರ್ಯಪಾಲಕ ಅಭಿಯಂತರರು
ಬ್ಯಾಟರಾಯನಪುರ ಉಪ ವಿಭಾಗ
ಬಿ.ಬಿ.ಎಂ.ಪಿ., ಬೆಂಗಳೂರು-24

Format No: CP/TF/01

TEST REPORT OF CEMENT CONCRETE CUBES

Lab ID : **CP-2022-02-26-20** **Date: 20/01/2022**

Project Name : Improvements roads and drains at MCECHS Layout in Ward No.05 Byatarayanapura Sub Division.

Agency : M/S Sathya A Constructions Prop. Sri.R.Satheesh, No:600, Down Bazar Road, Yelahanka Bengalore-560064

Customer's Reference : BBMP/EE/BTP/WO/29/2021-22

Date of Receipt : 15-01-22

Customer ID : Culvert Side Wall

Sample Type /Size : 150X150X150 mm

Sample grade/Age : M20 / 7 Days Compressive Strength

Reference to BIS codes : IS: 516 - 1959 Methods of Tests for Strength of Concrete Cl.5

Date of test : 20/01/2022

Sl. No.	Identification Mark	Grade of concrete	Date of Casting	Date of Testing	Dimension of the Specimen (mm)	Cross sectional area (Sq.mm)	Weight of the sample (kg)	Failure Load (KN)	Compressive strength (N/mm^2)	Average Compressive Strength (N/mm^2)
1	Culvert Side Wall	M20	13/01/2022	20/01/2022	151.63 X 151.87 X 150.72	23027	8.910	435.6	18.9	18.7
2	Culvert Side Wall	M20	13/01/2022	20/01/2022	149.62 X 150.26 X 149.13	22481	8.960	415.9	18.5	
3	Culvert Side Wall	M20	13/01/2022	20/01/2022	150.16 X 149.58 X 149.26	22461	8.283	422.3	18.8	

The results obtained are satisfactory as per standard requirements.

CIVIL Pro Sig..... Date..... BANGALORE

FOR CIVIL Pro.

R.KARTHIK RECHAN
Authorized Signatory
Quality Manager

****End of Report****

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Certificate No.: TC-5548

Format No: CP/TF/01

TEST REPORT OF CEMENT CONCRETE CUBES

Lab ID : **CP-2022-02-26-20** **Date: 10/02/2022**

Project Name : Improvements roads and drains at MCECHS Layout in Ward No.05 Byatarayanapura Sub Division.

Agency : M/S Sathya A Constructions Prop. Sri.R.Satheesh, No:600, Down Bazar Road, Yelahanka Bengalore-560064

Customer's Reference : BBMP/EE/BTP/WO/29/2021-22

Date of Receipt : 15-01-22

Customer ID : Culvert Side Wall

Sample Type /Size : 150X150X150 mm

Sample grade/Age : M20 / 28 Days Compressive Strength

Reference to BIS codes : IS: 516 - 1959 Methods of Tests for Strength of Concrete Cl.5

Date of test : 10/02/2022

Sl. No.	Identification Mark	Grade of concrete	Date of Casting	Date of Testing	Dimension of the Specimen (mm)	Cross sectional area (Sq.mm)	Weight of the sample (kg)	Failure Load (KN)	Compressive strength (N/mm^2)	Average Compressive Strength (N/mm^2)
1	Culvert Side Wall	M20	13/01/2022	10/02/2022	149.32 X 149.70 X 149.13	22353	8.804	518.4	23.2	23.1
2	Culvert Side Wall	M20	13/01/2022	10/02/2022	149.18 X 151.90 X 149.64	22660	8.392	524.8	23.2	
3	Culvert Side Wall	M20	13/01/2022	10/02/2022	150.57 X 151.43 X 150.90	22801	8.993	521.6	22.9	

The results obtained are satisfactory as per standard requirements.

CIVIL Pro Sig..... Date..... BANGALORE

FOR CIVIL Pro.

R.KARTHIK RECHAN
Authorized Signatory
Quality Manager

****End of Report****

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WAY & BUILDING MATERIALS TESTING LABORATORY | STRUCTURAL | ENVIRONMENTAL
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Format No: CP/TF/01

TEST REPORT OF CEMENT CONCRETE CUBES

Lab ID : **CP-2022-02-26-20**

Date: 20/01/2022

Project Name : Improvements roads and drains at MCECHS Layout in Ward No.05 Byatarayanapura Sub Division.

Agency : M/S Sathya A Constructions Prop. Sri.R.Satheesh, No:600, Down Bazar Road, Yelahanka Bengalore-560064

Customer's Reference : BBMP/EE/BTP/WO/29/2021-22

Date of Receipt : 15-01-22

Customer ID : Culvert Side Wall

Sample Type /Size : 150X150X150 mm

Sample grade/Age : M20 / 7 Days Compressive Strength

Reference to BIS codes : IS: 516 - 1959 Methods of Tests for Strength of Concrete Cl.5

Date of test : 20/01/2022

Sl. No.	Identification Mark	Grade of concrete	Date of Casting	Date of Testing	Dimension of the Specimen (mm)	Cross sectional area (Sq.mm)	Weight of the sample (kg)	Failure Load (KN)	Compressive strength (N/mm^2)	Average Compressive Strength (N/mm^2)
1	Culvert Side Wall	M20	13/01/2022	20/01/2022	150.43 X 149.46 X 151.47	22484	9.047	420.2	18.7	18.3
2	Culvert Side Wall	M20	13/01/2022	20/01/2022	151.85 X 151.83 X 151.53	23055	8.528	419.9	18.2	
3	Culvert Side Wall	M20	13/01/2022	20/01/2022	149.38 X 151.78 X 149.29	22673	8.531	409.6	18.1	

The results obtained are satisfactory as per standard requirements.

CIVIL Pro Sig Date BANGALORE

FOR CIVIL Pro.

RAARTHIK RECHAN
Authorized Signatory
Quality Manager

****End of Report****

ಸಹಾಯಕ ಕಾರ್ಯ ಪಾಲಕ ಅಭಿಯಂತರರ
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Format No: CP/TF/01

TEST REPORT OF CEMENT CONCRETE CUBES

Lab ID : **CP-2022-02-26-20**

Date: 10/02/2022

Project Name : Improvements roads and drains at MCECHS Layout in Ward No.05 Byatarayanapura Sub Division.

Agency : M/S Sathya A Constructions Prop. Sri.R.Satheesh, No:600, Down Bazar Road, Yelahanka Bengalore-560064

Customer's Reference : BBMP/EE/BTP/WO/29/2021-22

Date of Receipt : 15-01-22

Customer ID : Culvert Side Wall

Sample Type /Size : 150X150X150 mm

Sample grade/Age : M20 / 28 Days Compressive Strength

Reference to BIS codes : IS: 516 - 1959 Methods of Tests for Strength of Concrete Cl.5

Date of test : 10/02/2022

Sl. No.	Identification Mark	Grade of concrete	Date of Casting	Date of Testing	Dimension of the Specimen (mm)	Cross sectional area (Sq.mm)	Weight of the sample (kg)	Failure Load (KN)	Compressive strength (N/mm^2)	Average Compressive Strength (N/mm^2)
1	Culvert Side Wall	M20	13/01/2022	10/02/2022	151.21 X 150.21 X 150.05	22713	8.372	528.2	23.3	23.0
2	Culvert Side Wall	M20	13/01/2022	10/02/2022	151.54 X 151.95 X 150.85	23027	8.681	526.5	22.9	
3	Culvert Side Wall	M20	13/01/2022	10/02/2022	150.27 X 150.92 X 150.04	22680	8.604	517.4	22.8	

The results obtained are satisfactory as per standard requirements.

CIVIL Pro Sig..... Date..... BANGALORE

FOR CIVIL Pro.

R KARTHIK RECHAN
Authorized Signatory
Quality Manager

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Format No: CP/TF/01

TEST RESULTS OF STEEL

ID	:	**CP-2022-02-26-20** **Date: 17-12-21**
Name	:	Improvements roads and drains at MCECHS Layout in Ward No.05 Byatarayanapura Sub Division.
	:	M/S Sathya A Constructions Prop. Sri.R.Satheesh, No:600, Down Bazar Road, Yelahanka Bengalore-560064
mer's Reference	:	BBMP/EE/BTP/WO/29/2021-22
Receipt	:	15-12-21
Type	:	Indus
to BIS codes	:	IS 1786-2008, IS:1608-2005(RA 2011), IS 1599-2012.
Test:	:	16-12-21

Identification of sample	Grade of the sample	Diameter of the steel bar	Weight of the sample	Yield stress	Tensile strength	Elongation	Bend test	Rebend test
		(mm)	(kg/m)	(N/mm2)	(N/mm2)	(%)		
Indus	Fe500	10	0.165	572	685	21.0%	Satisfactory	Satisfactory
Indus	Fe500	12	0.885	584	692	20.5%	Satisfactory	Satisfactory

ults obtained are satisfactory as per standard requirements.

CIVIL Pro Sig..... Date..... BANGALORE

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Authorized Signatory
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Page 1/1
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TEST RESULTS OF GRADATION FOR GSB
(IS 2386:(Part 1) 1963 (RA2011)

Lab ID : **CP-RW-2022-02-26-20** **Date: 20-01-22**

Project Name : Improvements roads and drains at MCECHS Layout in Ward No.05 Byatarayanapura Sub Division.

Agency : M/S Sathya A Constructions Prop. Sri.R.Satheesh, No:600, Down Bazar Road, Yelahanka Bengalore-560064

Customer Reference : BBMP/EE/BTP/WO/29/2021-22

Date of Receipt : 18-01-22

Type of Mix : GSB (Granular Sub Base)

Date of test : 18-01-22

Oven Dry Weight : 10000 Grams

IS Sieve Size(mm)	Weight Retained (gm)	Cumulative Weight Retained (gm)	% Cumulative Weight Retained	% Passing	Spec. Limit Vide Table 400.1 MORTH Specification
75.0	0	0	0	100	100
53.0	388	388	3.9	96.1	80-100
26.5	1755	2143	21.4	78.6	55-90
9.50	2892	5035	50.4	49.7	35-65
4.75	1515	6550	65.5	34.5	25-50
2.36	2064	8614	86.1	13.9	10-20
0.85	1066	9680	96.8	3.2	2-10
0.425	106	9786	97.9	2.1	0-5

TESTS ON FILLER SCREEN MATERIALS

Sl no	Particulars	Test results	Spec.Limit Vide Table
1	Liquid Limit, %	22.12%	Maximum 25
2	Plasticity index, %	Non plastic	Maximum 6

* The results obtained are satisfactory as per standard requirements.

CIVIL Pro Sig..... Date..... BANGALORE

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Authorized Signatory
Quality Manager

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TEST RESULTS OF GRADATION FOR GSB
(IS 2386:(Part 1) 1963 (RA2011)

Lab ID : **CP-RW-2022-02-26-20** **Date: 21-01-22**

Project Name : Improvements roads and drains at MCECHS Layout in Ward No.05 Byatarayanapura Sub Division.

Agency : M/S Sathya A Constructions Prop. Sri.R.Satheesh, No:600, Down Bazar Road, Yelahanka Bengalore-560064

Customer Reference : BBMP/EE/BTP/WO/29/2021-22

Date of Receipt : 19-01-22

Type of Mix : GSB (Granular Sub Base)

Date of test : 19-01-22

Oven Dry Weight : 10000 Grams

IS Sieve Size(mm)	Weight Retained (gm)	Cumulative Weight Retained (gm)	% Cumulative Weight Retained	% Passing	Spec. Limit Vide Table 400.1 MORTH Specification
75.0	0	0	0	100	100
53.0	391	391	3.9	96.1	80-100
26.5	1801	2192	21.9	78.1	55-90
9.50	2911	5103	51.0	49.0	35-65
4.75	1601	6704	67.0	33.0	25-50
2.36	2044	8748	87.5	12.5	10-20
0.85	1002	9750	97.5	2.5	2-10
0.425	101	9851	98.5	1.5	0-5

TESTS ON FILLER SCREEN MATERIALS

Sl no	Particulars	Test results	Spec.Limit Vide Table
1	Liquid Limit, %	22.85%	Maximum 25
2	Plasticity index, %	Non plastic	Maximum 6

* The results obtained are satisfactory as per standard requirements.

CIVIL Pro Sig..... Date..... BANGALORE

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R KARTHIK RECHAN
Authorized Signatory
Quality Manager

End of Report

TEST RESULTS OF GRADATION FOR WMM

Lab ID : **CP-RW-2022-02-26-20** **Date: 27-01-22**

Project Name : Improvements roads and drains at MCECHS Layout in Ward No.05 Byatarayanapura Sub Division.

Agency : M/S Sathya A Constructions Prop. Sri.R.Satheesh, No:600, Down Bazar Road, Yelahanka Bengalore-560064

Customer Reference : BBMP/EE/BTP/WO/29/2021-22

Date of Receipt : 24-01-22

Type of Mix : WMM (Wet Mix Macadam)

Date of test : 24-01-22

Oven Dry Weight : 10500 Grams

IS Sieve Size(mm)	Weight Retained (gm)	Cumulative Weight Retained (gm)	% Cumulative Weight Retained	% Passing	Spec.I.Vide Table 400.13 MORTH Specification
53	0	0	0.0	100.0	100
45	298	298	2.8	97.2	95-100
22.4	2078	2376	22.6	77.4	60-80
11.2	2314	4690	44.7	55.3	40-60
4.75	2098	6788	64.6	35.4	25-40
2.36	1987	8775	83.6	16.4	15-30
0.6	547	9322	88.8	11.2	8-22
0.075	678	10000	95.2	4.8	0-5

* The results obtained are satisfactory as per standard requirements.

CIVIL Pro Sig..... Date..... BANGALORE

FOR CIVIL Pro,

R.KARTHIK RECHAN
Authorized Signatory
Quality Manager

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Certificate No.: TC-5548

TEST REPORT OF AGGEGRATE IMPACT VALUE
IS: 2386 Part IV

Lab ID	:	**CP-RW-2022-02-26-20** **Date: 27-01-22**
Project Name	:	Improvements roads and drains at MCECHS Layout in Ward No.05 Byatarayanapura Sub Division.
Agency	:	M/S Sathya A Constructions Prop. Sri.R.Satheesh, No:600, Down Bazar Road, Yelahanka Bengalore-560064
Customer Reference	:	BBMP/EE/BTP/WO/29/2021-22
Date of Receipt	:	24-01-22
Type of Mix	:	Coarse Aggregate for WMM (Wet Mix Macadam)
Date of test	:	24-01-22

Sl.No	Particulars of observations	Index	TEST 1	TEST 2
1	Total weight of the surface dry sample sample (passing 12.5 mm and retained on 10mm sieve)	A	305.5	305.9
2	Weight of fraction passing 2.36mm sieve After giving 15 blows	B	72.5	71.7
3	weight of fraction retained 2.36mm sieve After giving 15 blows	C	232.4	233.7
4	Total weight of (B+C) is less than the initial weight (Weight A) by more than one gram the result shall be discarded and a fresh test made.	A-(B+C)	0.6	0.5
5	Aggregate impact value	(B/A)*100	23.7	23.4
6	Aggregate impact value (Mean of two tests)	Pecentage	23.6	

* The results obtained are satisfactory as per standard requirements.

CIVIL Pro Sig..... Date..... BANGALORE

FOR CIVIL Pro.
R KARTHIK RECHAN
Authorized Signatory
Quality Manager

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HIGHWAY & BUILDING MATERIALS TESTING LABORATORY | STRUCTURAL | ENVIRONMENTAL
WATER TESTING | GEO TECHNICAL | PROJECT MANAGEMENT | SURVEYING SERVICES

DETERMINATION OF FLAKINESS INDEX AND ELONGATION INDEX OF COARSE AGGREGATE(IS 2386 (Part 1) 1963 (RA 2007)

Lab ID	:	**CP-RW-2022-02-26-20** **Date: 27-01-22**
Project Name	:	Improvements roads and drains at MCECHS Layout in Ward No.05 Byatarayanapura Sub Division.
Agency	:	M/S Sathya A Constructions Prop. Sri.R.Satheesh, No:600, Down Bazar Road, Yelahanka Bengalore-560064
Customer Reference	:	BBMP/EE/BTP/WO/29/2021-22
Date of Receipt	:	24-01-22
Type of Mix	:	Coarse Aggregate for WMM (Wet Mix Macadam)
Date of test	:	24-01-22

Result:

Index	Percentage of Flakiness and Elongation Index	Secified limits as per MORTH specification table 400-12
Flakiness Index	10.4%	Combined Flakiness & Elongation Index for WMM is Maximum 35%
Elongation Index	12.8%	
Combined Flakiness and Elongation Index for WMM	23.2%	

The results obtained are satisfactory as per standard requirements.

CIVIL Pro Sig..... Date..... BANGALORE

FOR CIVIL Pro.

R KARTHIK RECHAN
Authorized Signatory
Quality Manager

End of Report

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Certificate No.: TC-5548

TEST RESULTS OF GRADATION FOR WMM

Lab ID : **CP-RW-2022-02-26-20** **Date: 27-01-22**

Project Name : Improvements roads and drains at MCECHS Layout in Ward No.05 Byatarayanapura Sub Division.

Agency : M/S Sathya A Constructions Prop. Sri.R.Satheesh, No:600, Down Bazar Road, Yelahanka Bengalore-560064

Customer Reference : BBMP/EE/BTP/WO/29/2021-22

Date of Receipt : 25-01-22

Type of Mix : WMM (Wet Mix Macadam)

Date of test : 25-01-22

Oven Dry Weight : 11000 Grams

IS Sieve Size(mm)	Weight Retained (gm)	Cumulative Weight Retained (gm)	% Cumulative Weight Retained	% Passing	Spec.I.Vide Table 400.13 MORTH Specification
53	0	0	0.0	100.0	100
45	223	223	2.0	98.0	95-100
22.4	2164	2387	21.7	78.3	60-80
11.2	2379	4766	43.3	56.7	40-60
4.75	2451	7217	65.6	34.4	25-40
2.36	1865	9082	82.6	17.4	15-30
0.6	623	9705	88.2	11.8	8-22
0.075	1138	10843	98.6	1.4	0-5

The results obtained are satisfactory as per standard requirements.

CIVIL Pro Sig..... Date..... BANGALORE

FOR CIVIL Pro.
R KARTHIK RECHAN
Authorized Signatory
Quality Manager

End of Report

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TEST REPORT OF AGGEGRATE IMPACT VALUE
IS: 2386 Part IV

Lab ID : **CP-RW-2022-02-26-20**

Date: 27-01-22

Project Name : Improvements roads and drains at MCECHS Layout in Ward No.05 Byatarayanapura Sub Division.

Agency : M/S Sathya A Constructions Prop. Sri.R.Satheesh, No:600, Down Bazar Road, Yelahanka Bengalore-560064

Customer Reference : BBMP/EE/BTP/WO/29/2021-22

Date of Receipt : 25-01-22

Type of Mix : Coarse Aggregate for WMM (Wet Mix Macadam)

Date of test : 25-01-22

Sl.No	Particulars of observations	Index	TEST 1	TEST 2
1	Total weight of the surface dry sample sample (passing 12.5 mm and retained on 10mm sieve)	A	308.5	308.5
2	Weight of fraction passing 2.36mm sieve After giving 15 blows	B	77.6	77.4
3	weight of fraction retained 2.36mm sieve After giving 15 blows	C	230.3	230.7
4	Total weight of (B+C) is less than the initial weight (Weight A) by more than one gram the result shall be discarded and a fresh test made.	A-(B+C)	0.6	0.4
5	Aggregate impact value	(B/A)*100	25.2	25.1
6	Aggregate impact value (Mean of two tests)	Pecentage	25.1	

* The results obtained are satisfactory as per standard requirements.

CIVIL Pro Sig..... Date..... BANGALORE

FOR CIVIL Pro.

R KARTHIK RECHAN
Authorized Signatory
Quality Manager

End of Report

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Certificate No.: TC-5548

DETERMINATION OF FLAKINESS INDEX AND ELONGATION INDEX OF COARSE AGGREGATE(IS 2386 (Part 1) 1963 (RA 2007)

Lab ID	:	**CP-RW-2022-02-26-20** **Date: 27-01-22**
Project Name	:	Improvements roads and drains at MCECHS Layout in Ward No.05 Byatarayanapura Sub Division.
Agency	:	M/S Sathya A Constructions Prop. Sri.R.Satheesh, No:600, Down Bazar Road, Yelahanka Bengalore-560064
Customer Reference	:	BBMP/EE/BTP/WO/29/2021-22
Date of Receipt	:	25-01-22
Type of Mix	:	Coarse Aggregate for WMM (Wet Mix Macadam)
Date of test	:	25-01-22

Result:

Index	Percentage of Flakiness and Elongation Index	Secified limits as per MORTH specification table 400-12
Flakiness Index	11.8%	Combined Flakiness & Elongation Index for WMM is Maximum 35%
Elongation Index	12.1%	
Combined Flakiness and Elongation Index for WMM	23.9%	

* The results obtained are satisfactory as per standard requirements.

CIVIL Pro Sig..... Date..... BANGALORE

FOR CIVIL Pro.

R KARTHIK RECHAN
Authorized Signatory
Quality Manager

End of Report

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TEST RESULTS OF GRADATION FOR WMM

Lab ID : **CP-RW-2022-02-26-20** **Date: 29-01-22**

Project Name : Improvements roads and drains at MCECHS Layout in Ward No.05 Byatarayanapura Sub Division.

Agency : M/S Sathya A Constructions Prop. Sri.R.Satheesh, No:600, Down Bazar Road, Yelahanka Bengalore-560064

Customer Reference : BBMP/EE/BTP/WO/29/2021-22

Date of Receipt : 27-01-22

Type of Mix : WMM (Wet Mix Macadam)

Date of test : 27-01-22

Oven Dry Weight : 10000 Grams

IS Sieve Size(mm)	Weight Retained (gm)	Cumulative Weight Retained (gm)	% Cumulative Weight Retained	% Passing	Spec.I.Vide Table 400.13 MORTH Specification
53	0	0	0.0	100.0	100
45	12	12	0.1	99.9	95-100
22.4	2287	2299	23.0	77.0	60-80
11.2	2315	4614	46.1	53.9	40-60
4.75	1799	6413	64.1	35.9	25-40
2.36	1974	8387	83.9	16.1	15-30
0.6	654	9041	90.4	9.6	8-22
0.075	659	9700	97.0	3.0	0-5

* The results obtained are satisfactory as per standard requirements.

CIVIL Pro Sig..... Date..... BANGALORE

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R KARTHIK RECHAN
Authorized Signatory
Quality Manager

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DETERMINATION OF FLAKINESS INDEX AND ELONGATION INDEX OF COARSE AGGREGATE(IS 2386 (Part 1) 1963 (RA 2007)

Lab ID	:	**CP-RW-2022-02-26-20** **Date: 29-01-22**
Project Name	:	Improvements roads and drains at MCECHS Layout in Ward No.05 Byatarayanapura Sub Division.
Agency	:	M/S Sathya A Constructions Prop. Sri.R.Satheesh, No:600, Down Bazar Road, Yelahanka Bengalore-560064
Customer Reference	:	BBMP/EE/BTP/WO/29/2021-22
Date of Receipt	:	27-01-22
Type of Mix	:	Coarse Aggregate for WMM (Wet Mix Macadam)
Date of test	:	27-01-22

Result:

Index	Percentage of Flakiness and Elongation Index	Secified limits as per MORTH specification table 400-12
Flakiness Index	10.2	Combined Flakiness & Elongation Index for WMM is Maximum 35%
Elongation Index	11.9	
Combined Flakiness and Elongation Index for WMM	22.1	

* The results obtained are satisfactory as per standard requirements.

CIVIL Pro Sig..... Date..... BANGALORE

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R KARTHIK RECHAN
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TEST RESULTS OF GRADATION FOR WMM

Lab ID : **CP-RW-2022-02-26-20** **Date: 31-01-22**

Project Name : Improvements roads and drains at MCECHS Layout in Ward No.05 Byatarayanapura Sub Division.

Agency : M/S Sathya A Constructions Prop. Sri.R.Satheesh, No:600, Down Bazar Road, Yelahanka Bengalore-560064

Customer Reference : BBMP/EE/BTP/WO/29/2021-22

Date of Receipt : 28-01-22

Type of Mix : WMM (Wet Mix Macadam)

Date of test : 28-01-22

Oven Dry Weight : 10000 Grams

IS Sieve Size(mm)	Weight Retained (gm)	Cumulative Weight Retained (gm)	% Cumulative Weight Retained	% Passing	Spec.I.Vide Table 400.13 MORTH Specification
53	0	0	0.0	100.0	100
45	232	232	2.3	97.7	95-100
22.4	2133	2365	23.7	76.4	60-80
11.2	2365	4730	47.3	52.7	40-60
4.75	1321	6051	60.5	39.5	25-40
2.36	1886	7937	79.4	20.6	15-30
0.6	255	8192	81.9	18.1	8-22
0.075	1399	9591	95.9	4.1	0-5

* The results obtained are satisfactory as per standard requirements.

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Certificate No.: TC-5548

TEST RESULTS OF GRADATION FOR WMM

Lab ID : **CP-RW-2022-02-26-20** **Date: 31-01-22**

Project Name : Improvements roads and drains at MCECHS Layout in Ward No.05 Byatarayanapura Sub Division.

Agency : M/S Sathya A Constructions Prop. Sri.R.Satheesh, No:600, Down Bazar Road, Yelahanka Bengalore-560064

Customer Reference : BBMP/EE/BTP/WO/29/2021-22

Date of Receipt : 29-01-22

Type of Mix : WMM (Wet Mix Macadam)

Date of test : 29-01-22

Oven Dry Weight : 10000 Grams

IS Sieve Size(mm)	Weight Retained (gm)	Cumulative Weight Retained (gm)	% Cumulative Weight Retained	% Passing	Spec.I.Vide Table 400.13 MORTH Specification
53	0	0	0.0	100.0	100
45	232	232	2.3	97.7	95-100
22.4	2133	2365	23.7	76.4	60-80
11.2	2365	4730	47.3	52.7	40-60
4.75	1321	6051	60.5	39.5	25-40
2.36	1886	7937	79.4	20.6	15-30
0.6	255	8192	81.9	18.1	8-22
0.075	1399	9591	95.9	4.1	0-5

* The results obtained are satisfactory as per standard requirements.

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TEST RESULTS OF GRADATION FOR WMM

Lab ID : **CP-RW-2022-02-26-20** **Date: 02-02-22**

Project Name : Improvements roads and drains at MCECHS Layout in Ward No.05 Byatarayanapura Sub Division.

Agency : M/S Sathya A Constructions Prop. Sri.R.Satheesh, No:600, Down Bazar Road, Yelahanka Bengalore-560064

Customer Reference : BBMP/EE/BTP/WO/29/2021-22

Date of Receipt : 31-01-22

Type of Mix : WMM (Wet Mix Macadam)

Date of test : 31-01-22

Oven Dry Weight : 11000 Grams

IS Sieve Size(mm)	Weight Retained (gm)	Cumulative Weight Retained (gm)	% Cumulative Weight Retained	% Passing	Spec.I.Vide Table 400.13 MORTH Specification
53	0	0	0.0	100.0	100
45	302	302	2.7	97.3	95-100
22.4	2347	2649	24.1	75.9	60-80
11.2	2088	4737	43.1	56.9	40-60
4.75	2218	6955	63.2	36.8	25-40
2.36	1675	8630	78.5	21.5	15-30
0.6	642	9272	84.3	15.7	8-22
0.075	1485	10757	97.8	2.2	0-5

* The results obtained are satisfactory as per standard requirements.

CIVIL Pro Sig..... Date..... BANGALORE

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TEST RESULTS OF GRADATION FOR WMM

Lab ID : **CP-RW-2022-02-26-20** **Date: 03-02-22**

Project Name : Improvements roads and drains at MCECHS Layout in Ward No.05 Byatarayanapura Sub Division.

Agency : M/S Sathya A Constructions Prop. Sri.R.Satheesh, No:600, Down Bazar Road, Yelahanka Bengalore-560064

Customer Reference : BBMP/EE/BTP/WO/29/2021-22

Date of Receipt : 01-02-22

Type of Mix : WMM (Wet Mix Macadam)

Date of test : 01-02-22

Oven Dry Weight : 10000 Grams

IS Sieve Size(mm)	Weight Retained (gm)	Cumulative Weight Retained (gm)	% Cumulative Weight Retained	% Passing	Spec.I.Vide Table 400.13 MORTH Specification
53	0	0	0.0	100.0	100
45	298	298	3.0	97.0	95-100
22.4	2072	2370	23.7	76.3	60-80
11.2	2349	4719	47.2	52.8	40-60
4.75	2217	6936	69.4	30.6	25-40
2.36	1754	8690	86.9	13.1	15-30
0.6	228	8918	89.2	10.8	8-22
0.075	898	9816	98.2	1.8	0-5

* The results obtained are satisfactory as per standard requirements.

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TEST RESULTS OF GRADATION FOR WMM

Lab ID : **CP-RW-2022-02-26-20** **Date: 04-02-22**

Project Name : Improvements roads and drains at MCECHS Layout in Ward No.05 Byatarayanapura Sub Division.

Agency : M/S Sathya A Constructions Prop. Sri.R.Satheesh, No:600, Down Bazar Road, Yelahanka Bengalore-560064

Customer Reference : BBMP/EE/BTP/WO/29/2021-22

Date of Receipt : 02-02-22

Type of Mix : WMM (Wet Mix Macadam)

Date of test : 02-02-22

Oven Dry Weight : 11000 Grams

IS Sieve Size(mm)	Weight Retained (gm)	Cumulative Weight Retained (gm)	% Cumulative Weight Retained	% Passing	Spec.I.Vide Table 400.13 MORTH Specification
53	0	0	0.0	100.0	100
45	216	216	2.0	98.0	95-100
22.4	2198	2414	21.9	78.1	60-80
11.2	2109	4523	41.1	58.9	40-60
4.75	2588	7111	64.6	35.4	25-40
2.36	1569	8680	78.9	21.1	15-30
0.6	598	9278	84.3	15.7	8-22
0.075	1562	10840	98.5	1.5	0-5

* The results obtained are satisfactory as per standard requirements.

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TEST RESULTS OF GRADATION FOR DBM
(IS 2386:(Part 1) 1963 (RA2011)

Lab ID : **CP-RW-2022-02-26-20** **Date: 11-02-22**

Project Name : Improvements roads and drains at MCECHS Layout in Ward No.05 Byatarayanapura Sub Division.

Agency : M/S Sathya A Constructions Prop. Sri.R.Satheesh, No:600, Down Bazar Road, Yelahanka Bengalore-560064

Customer Reference : BBMP/EE/BTP/WO/29/2021-22

Date of Receipt : 09-02-22

Type of Mix : DBM-Plant (Dense Bituminous Macadam)

Date of test : 09-02-22

Weight of Sample : 5000 Grams

IS Sieve Size (mm)	Weight Retained (gm)	Comulative Weight Retained (gm)	Comulative % of Retained	Comulative % of Passing	Specification Limits as per MORTH specification Table 500-10 (grading -2)
37.5	0	0	0	100	100
26.5	153	153	3.1	96.9	90-100
19	1054	1207	24.1	75.9	71-95
13.2	584	1791	35.8	64.2	56-80
4.75	1788	3579	71.6	28.4	38-54
2.36	598	4177	83.5	16.5	28-42
0.3	292	4469	89.4	10.6	7-21
0.075	186	4655	93.1	6.9	2-8
PAN	345	5000	0.0	0.0	0

* The results obtained are satisfactory as per standard requirements.

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PHYSICAL REQUIREMENTS FOR COARSE AGGREGATE FOR DENSE BITUMINOUS MACADAM

Lab ID : **CP-RW-2022-02-26-20** **Date: 12-02-22**

Project Name : Improvements roads and drains at MCECHS Layout in Ward No.05 Byatarayanapura Sub Division.

Agency : M/S Sathya A Constructions Prop. Sri.R.Satheesh, No:600, Down Bazar Road, Yelahanka Bengalore-560064

Customer Reference : BBMP/EE/BTP/WO/29/2021-22

Date of Receipt : 09-02-22

Type of Mix : DBM (Dense Bituminous Macadam)

Date of test : 09-02-22

Table 500-6 : Physical Requirements fo Coarse Aggregate for Dense Bituminous Macadam

Property	Test	Result	Specification	Method of Test
Partical Shape	Flakiness Index	14.2	Combined Flakiness & Elongation Index for DBM is Maximum 35%	IS:2386 Part I
	Elongation Index	11.4		
Strength	Aggregate Impact Value	22.8	Maximum 30%	IS:2386 Part IV
Specific gravity	Specific gravity	2.62	Maximum 2.7	IS:2386 Part III
Water Absorption	Water Absorption	0.28	Maximum 2%	IS:2386 Part III

* The results obtained are satisfactory as per standard requirements.

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TESTS RESULTS ON STABILITY OF MIX

Lab ID : **CP-RW-2022-02-26-20** **Date: 12-02-22**

Project Name : Improvements roads and drains at MCECHS Layout in Ward No.05 Byatarayanapura Sub Division.

Agency : M/S Sathya A Constructions Prop. Sri.R.Satheesh, No:600, Down Bazar Road, Yelahanka Bengalore-560064

Customer Reference : BBMP/EE/BTP/WO/29/2021-22

Date of Receipt : 09-02-22

Type of Mix : DBM (Dense Bituminous Mecadam)

Date of test : 09-02-22

The results of the tests conducted on the Dense Bituminous Macadam mix sample are as follow

Sl.No	Particulars of observations	TEST 1	TEST 2	Secified limits as per MORTH specification table 500-11
1	Marshal Stability at 60°C, KN	11.98	11.49	9KN(Min)
2	Marshal flow at 60°C, mm	3.18	3.25	2-4
3	Percent air Voids	4.49	4.25	3-5
4	Percent Voids in mineral Aggregate(VMA %)	14.29	14.51	13-15
5	Percent Voids filled with Bitumen(VFB %)	67.54	68.43	65-75
6	Density, g/cc	2.41	2.41	–

* The results obtained are satisfactory as per standard requirements.

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TEST REPORT OF AGGEGRATE STRIPPING VALUE OF ROAD AGGRGATE (IS:6241)

Lab ID : **CP-RW-2022-02-26-20** **Date: 12-02-22**

Project Name : Improvements roads and drains at MCECHS Layout in Ward No.05 Byatarayanapura Sub Division.

Agency : M/S Sathya A Constructions Prop. Sri.R.Satheesh, No:600, Down Bazar Road, Yelahanka Bengalore-560064

Customer Reference : BBMP/EE/BTP/WO/29/2021-22

Date of Receipt : 09-02-22

Type of Mix : DBM(Dense Bitumnous Macadam)

Date of test : 09-02-22

Type of Binder : 60/70

% of Binder Used : 5.0%

Weight of Aggregate : 200.0 gm

Weight of Binder : 10.0 gm

Temperature of water bath : 40°C

No of test	Retained Stripping Percentage	Stripping Percentage	Average Retained Stripping Percentage	Secified limits as per MORTH specification table 500-8
1	99.0	1.0	98.5	Minimum Retained Coating 95%
2	98.5	1.5		
3	98.0	2.0		

* The results obtained are satisfactory as per standard requirements.

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TEST RESULTS OF BITUMEN BINDAR CONTENT AND GRADATION FOR DBM (IS 2386:(Part 1) 1963 (RA2011)

Lab ID : **CP-RW-2022-02-26-20** **Date: 25-02-22**

Project Name : Improvements roads and drains at MCECHS Layout in Ward No.05 Byatarayanapura Sub Division.

Agency : M/S Sathya A Constructions Prop. Sri.R.Satheesh, No:600, Down Bazar Road. Yelahanka Bengalore-560064

Customer Reference : BBMP/EE/BTP/WO/29/2021-22

Date of Receipt : 24-02-22

Type of Mix : DBM (Dense Bituminous Macadam)

Date of test : 24-02-22

Sl.no	Description	Index	Trail 1	Trail 2
1	Weight of the Sample	A	500	500
2	Weight of the sample After extraction	B	475	476
3	Bitumen percentage	$\frac{A-B}{A} \times 100$	5.0	4.8
4	Average percentage	%	4.9	

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Lab ID : **CP-RW-2022-02-26-20** **Date: 25-02-22**

AFTER EXTRACTION(Trail-1)

Weight of Sample(gm) : 475

IS Sieve Size(mm)	Weight Retained (gm)	Comulative Weight Retained (gm)	Comulative % of Retained	Comulative % of Passing	Specification Limits as per MORTH specification Table 500-10(grading -2)
37.5	0	0	0	100.0	100
26.5	25	25	5.3	94.7	90-100
19	94	119	25.1	74.9	71-95
13.2	79	198	41.7	58.3	56-80
4.75	87	285	60.0	40.0	38-54
2.36	52	337	70.9	29.1	28-42
0.3	92	429	90.3	9.7	7-21
0.075	27	456	96.0	4.0	2-8

AFTER EXTRACTION(Trail-2)

Weight of Sample(gm) : 476

IS Sieve Size(mm)	Weight Retained (gm)	Comulative Weight Retained (gm)	Comulative % of Retained	Comulative % of Passing	Specification Limits as per MORTH specification Table 500-10(grading -2)
37.5	0	0	0	100.0	100
26.5	21	21	4.4	95.6	90-100
19	95	116	24.4	75.6	71-95
13.2	75	191	40.1	59.9	56-80
4.75	89	280	58.8	41.2	38-54
2.36	55	335	70.4	29.6	28-42
0.3	86	421	88.4	11.6	7-21
0.075	21	442	92.9	7.1	2-8

* The results obtained are satisfactory as per standard requirements.

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TEST RESULTS OF GRADATION FOR BC
IS 2386 (Part 1) 1963 (RA 2007)

Lab ID : **CP-RW-2022-02-26-20** **Date: 18-02-22**

Project Name : Improvements roads and drains at MCECHS Layout in Ward No.05 Byatarayanapura Sub Division.

Agency : M/S Sathya A Constructions Prop. Sri.R.Satheesh, No:600, Down Bazar Road, Yelahanka Bengalore-560064

Customer Reference : BBMP/EE/BTP/WO/29/2021-22

Date of Receipt : 16-02-22

Type of Mix : BC-Plant (Bituminous Concrete)

Date of test : 16-02-22

Oven Dry Weight : 5000 Grams

IS Sieve Size (mm)	Weight Retained (gm)	Comulative Weight Retained (gm)	Comulative % of Retained	Comulative % of Passing	Secified limits as per MORTH specification table 500-17(grading-2)
19	0	0	0.0	100.0	100
13.2	72	72	1.4	98.6	90-100
9.5	801	873	17.5	82.5	70-88
4.75	855	1728	34.6	65.4	53-71
2.36	578	2306	46.1	53.9	42-58
1.18	502	2808	56.2	43.8	34-48
0.6	499	3307	66.1	33.9	26-38
0.3	535	3842	76.8	23.2	18-28
0.15	472	4314	86.3	13.7	12-20
0.075	385	4699	94.0	6.0	4-10
PAN	301	5000	100	0.0	0

* The results obtained are satisfactory as per standard requirements.

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TEST REPORT OF AGGEGRATE STRIPPING VALUE OF ROAD AGGRGATE (IS:6241)

Lab ID : **CP-RW-2022-02-26-20** **Date: 19-02-22**

Project Name : Improvements roads and drains at MCECHS Layout in Ward No.05 Byatarayanapura Sub Division.

Agency : M/S Sathya A Constructions Prop. Sri.R.Satheesh, No:600, Down Bazar Road, Yelahanka Bengalore-560064

Customer Reference : BBMP/EE/BTP/WO/29/2021-22

Date of Receipt : 16-02-22

Type of Mix : BC(Bitumenous Concrete)

Date of test : 16-02-22

Type of Binder : 60/70

% of Binder Used : 5.0%

Weight of Aggregate : 200.0 gm

Weight of Binder : 10.0 gm

Temperature of water bath : 40°C

No of test	Retained Stripping Percentage	Stripping Percentage	Average Retained Stripping Percentage	Secified limits as per MORTH specification table 500-8
1	98.0	2.0	98.5	Minimum Retained Coating 95%
2	99.0	1.0		
3	98.5	1.5		

* The results obtained are satisfactory as per standard requirements.

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R KARTHIK RECHAN
Authorized Signatory
Quality Manager

****End of Report****

PHYSICAL REQUIREMENTS FOR COARSE AGGREGATE FOR BITUMINOUS CONCRETE

Lab ID : **CP-RW-2022-02-26-20** **Date: 19-02-22**

Project Name : Improvements roads and drains at MCECHS Layout in Ward No.05 Byatarayanapura Sub Division.

Agency : M/S Sathya A Constructions Prop. Sri.R.Satheesh, No:600, Down Bazar Road, Yelahanka Bengalore-560064

Customer Reference : BBMP/EE/BTP/WO/29/2021-22

Date of Receipt : 16-02-22

Type of Mix : BC (Bituminous Concrete)

Date of test : 16-02-22

Table 500-16 : Physical Requirements fo Coarse Aggregate for Bituminous Concrete

Property	Test	Result	Specification	Method of Test
Partical Shape	Flakiness Index	12.1	Combined Flakiness & Elongation Index for BC is Maximum 35%	IS:2386 Part I
	Elongation Index	10.3		
Strength	Aggregate Impact Value	20.7	Maximum 24%	IS:2386 Part IV
Specific gravity	Specific gravity	2.64	Maximum 2.7	IS:2386 Part III
Water Absorption	Water Absorption	0.18	Maximum 2%	IS:2386 Part III

* The results obtained are satisfactory as per standard requirements.

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Quallity Manager

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TESTS RESULTS ON STABILITY OF MIX

Lab ID : **CP-RW-2022-02-26-20** **Date: 19-02-22**

Project Name : Improvements roads and drains at MCECHS Layout in Ward No.05 Byatarayanapura Sub Division.

Agency : M/S Sathya A Constructions Prop. Sri.R.Satheesh, No:600, Down Bazar Road, Yelahanka Bengalore-560064

Customer Reference : BBMP/EE/BTP/WO/29/2021-22

Date of Receipt : 16-02-22

Type of Mix : BC (Bituminous Concrete)

Date of test : 16-02-22

The results of the tests conducted on the Bituminous Concrete mix sample are as follow

Sl.No	Particulars of observations	TEST 1	TEST 2	Secified limits as per MORTH specification table 500-11
1	Marshal Stability at 60°C, KN	11.28	11.54	10KN(min)
2	Marshal flow at 60°C, mm	3.53	3.52	2-4
3	Percent air Voids	4.83	4.81	3-5
4	Percent Voids in mineral Aggregate(VMA %)	14.32	14.14	13-15
5	Percent Voids filled with Bitumen(VFB %)	72.46	72.49	65-75
6	Density, g/cc	2.26	2.27	–

* The results obtained are satisfactory as per standard requirements.

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TEST RESULTS OF BITUMEN BINDAR CONTENT AND GRADATION FOR BC
IS 2386 (Part 1) 1963 (RA 2011)

Lab ID : **CP-RW-2022-02-26-20** **Date: 26-02-22**

Project Name : Improvements roads and drains at MCECHS Layout in Ward No.05 Byatarayanapura Sub Division.

Agency : M/S Sathya A Constructions Prop. Sri.R.Satheesh, No:600, Down Bazar Road, Yelahanka Bengalore-560064

Customer Reference : BBMP/EE/BTP/WO/29/2021-22

Date of Receipt : 25-02-22

Type of Mix : BC (Bituminous Concrete)

Date of test : 25-02-22

Sl.no	Description	Index	Trail 1	Trail 2
1	Weight of the Sample	A	500	500
2	Weight of the sample After extraction	B	473	471
3	Bitumen percentage	$\frac{A-B}{A} \times 100$	5.40	5.80
4	Average percentage	%	5.6	

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WATER TESTING | GEO TECHNICAL | PROJECT MANAGEMENT | SURVEYING SERVICES

Lab ID : **CP-RW-2022-02-26-20** **Date: 26-02-22**

AFTER EXTRACTION - Trail-1

Total Weight of the Sample(gm) : 473

IS Sieve Size (mm)	Weight Retained (gm)	Comulative Weight Retained (gm)	Comulative % of Retained	Comulative % of Passing	Secified limits as per MORTH specification table 500-23(grading-2)
19	0	0	0.0	100.0	100
13.2	4	4	0.8	99.2	90-100
9.5	62	66	14.0	86.0	70-88
4.75	112	178	37.6	62.4	53-71
2.36	88	266	56.2	43.8	42-58
1.18	29	295	62.4	37.6	34-48
0.6	11	306	64.7	35.3	26-38
0.3	46	352	74.4	25.6	18-28
0.15	45	397	83.9	16.1	12-20
0.075	55	452	95.6	4.4	4-10

AFTER EXTRACTION - Trail-2

Total Weight of the Sample(gm) : 471

IS Sieve Size (mm)	Weight Retained (gm)	Comulative Weight Retained (gm)	Comulative % of Retained	Comulative % of Passing	Secified limits as per MORTH specification table 500-23(grading-2)
19	0	0	0.0	100.0	100
13.2	7	7	1.5	98.5	90-100
9.5	60	67	14.2	85.8	70-88
4.75	115	182	38.6	61.4	53-71
2.36	85	267	56.7	43.3	42-58
1.18	25	292	62.0	38.0	34-48
0.6	15	307	65.2	34.8	26-38
0.3	51	358	76.0	24.0	18-28
0.15	48	406	86.2	13.8	12-20
0.075	42	448	95.1	4.9	4-10

* The results obtained are satisfactory as per standard requirements.

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Format No: CP/TF/01

TEST REPORT ON BITUMEN

Lab ID	:	**CP-RW-2022-02-26-20** **Date: 04-02-22**
Project Name	:	Improvements roads and drains at MCECHS Layout in Ward No.05 Byatarayanapura Sub Division.
Agency	:	M/S Sathya A Constructions Prop. Sri.R.Satheesh, No:600, Down Bazar Road, Yelahanka Bengalore-560064
Customer's Reference	:	BBMP/EE/BTP/WO/29/2021-22
Date of Receipt	:	02-02-22
Sample Type	:	Bitumen
Reference to BIS codes	:	IS: 1201-1220(1978) (Reaffirmed-2004)
Date of test	:	02-02-22

Test Results

Sl.no	Name of Test	Result	Requirements as per IS:73-2013
1	Penetration at 25°C , in 1/10th mm	**64**	60 to 70
2	Softening Point, °C	**51.2**	Min. 40°C
3	Ductility, cm	**98**	Min. 75cm
4	Flash point, °C	**245**	Min. 220°C
	Fire point, °C	**272**	

* The results obtained are satisfactory as per standard requirements.

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Quality Manager

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WATER TESTING | GEO TECHNICAL | PROJECT MANAGEMENT | SURVEYING SERVICES

DETERMINATION OF RATE OF SPREAD TACK COAT

Lab ID : **CP-RW-2022-02-26-20** **Date: 26-02-22**

Project Name : Improvements roads and drains at MCECHS Layout in Ward No.05 Byatarayanapura Sub Division.

Agency : M/S Sathya A Constructions Prop. Sri.R.Satheesh, No:600, Down Bazar Road, Yelahanka Bengalore-560064

Customer Reference : BBMP/EE/BTP/WO/29/2021-22

Date of Receipt : 25-02-22

Type of Mix : Tack coat

Date of test : 25-02-22

Sl.No	Determination	Unit	TEST 1	TEST 2
1	Size of Plate (mxm)	Mt	0.30 x .30	0.30 x .30
2	Area of Plate (a)	Sq.mtr	0.09	0.09
3	Initial Wt of empty Plate (b)	Kg	0.78	0.748
4	Final weight of plate after application of tack Coat (c)	Kg	0.803	0.771
5	Weight of tack Coat (d=c-b)	Kg	0.023	0.023
6	Rate of spread of tack coat	Kg/sq.m	0.256	0.256
7	Average	Kg/sq.m	0.256	
8	Specified Limit	Kg/sq.m	0.250 Kg/sq.m	

* The results obtained are satisfactory as per standard requirements.

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